

**REMARKS**

Claims 1, 3-8, 10, 11 and 13-16 are pending in this application. By this Amendment, claims 1, 6 and 16 have been amended. Claims 1, 6 and 16 are independent. Reconsideration of the application is respectfully requested.

**I. Amendment**

Support for the amendments to claims 1, 6 and 16 can be found in the specification at, for example, page 14, line 25 - page 15, line 5. Thus, no new matter is added.

**II. The Claims Define Patentable Subject Matter**

The Office Action rejects claims 1, 3-5 and 16 under 35 U.S.C. §103(a) over U.S. Patent No. 6,806,982 to Newswanger et al. (Newswanger) in view of U.S. Patent Publication No. 2001/0013959 to Long and U.S. Patent Publication No. 2003/0184843 to Moon et al. (Moon); and rejects claims 6-8, 10, 11 and 13-15 under 35 U.S.C. §103(a) over Newswanger in view of Long, U.S. Patent Publication No. 2003/0117615 to Mui and Moon. These rejections are respectfully traversed.

Independent claim 1 recites, *inter alia*, "recording data pages by N exposures, in which N bit map images exposed in N separate exposure times so that they summed up, for each data page at (N + 1) levels of gradation with respect to each of areas of the recording layer corresponding to a single pixel of the data page by the object beam with a single exposure time  $t_1$  given by dividing  $t_0$  by N." Independent claim 16 recites similar subject matter. Independent claim 6 recites, *inter alia*, "the reflection type spatial light modulator is configured so that it is capable of making N exposures in which N images of bit map are exposed in N separate exposure times so that they summed up to each data page and capable of at most N times of reflection with respect to each of areas of the recording layer within an exposure time  $t_0$ , ... a single exposure time  $t_1$  is given by dividing  $t_0$  by N." The applied

references fail to teach or render obvious the recited features of independent claims 1, 6 and 16.

The Office Action alleges that Newswanger and Long are related as holographic devices. The Office Action recognizes that Newswanger fails to disclose that each of the areas of the recording layer corresponds to a single pixel of the data page, but alleges that Long teaches an exposure apparatus wherein each of the areas of the recording layer correspond to a single pixel of the data page, referring to Figs. 6 and 7 and paragraphs [0072] and [0078] - [0085] of Long. The Office Action asserts that it would have been obvious to a person of ordinary skill in the art to modify the device of Newswanger, as taught by Long, in order to very accurately control the shape of the exposure area so that the data can be unique for each exposure area.

However, in the exposure apparatus of Long, the areas of a recording layer correspond to a single pixel of the data page, which are exposed sequentially one by one, as shown in Figs. 6A, 6B, and 6C of Long. On the other hand, in the present application, data pages are recorded by N exposures, in which N bit map images exposed in N separate exposure times so that they summed up, for each data page. These features are recited in claims 1, 6 and 16. Long fails to teach or render obvious recording data pages by N exposures, in which N bit map images exposed in N separate exposure times so that they summed up, for each data page at  $(N + 1)$  levels of gradation with respect to each of areas of the recording layer corresponding to a single pixel of the data page by the object beam with a single exposure time  $t_1$  given by dividing  $t_0$  by N. Thus, Long fails to cure the deficiencies of Newswanger.

Also, since the exposure apparatus of Long exposes the areas of the recording layer sequentially, it is impossible to incorporate Long to modify the device of Newswanger in view of Moon to exercise control of the object beam to include the bit map image corresponding to all the pixels of the data page. Thus, one of ordinary skill would have had

no reason to modify the asserted combination of Long and Newswanger in view of Moon to render obvious the subject matter recited in the claims.

Mui fails to cure the deficiencies of Newswanger, Moon and Long. Accordingly, the applied references fail to teach or render obvious the recited features of independent claims 1, 6 and 16.

The dependent claims are patentable at least due to their dependence on allowable independent claims 1, 6 and 16 and for the additional features that they recite.

Accordingly, withdrawal of the rejections of the claims is respectfully requested.

### **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-8, 10, 11 and 13-16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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